

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended) A calibration artifact for calibrating a machine vision measurement system, the calibration artifact comprising:

a rigid substrate; and

a plurality of concentric rings on one surface of the substrate, each ring of a different pre-defined size and wherein the change between the size of any two adjacent rings is different than the change in size of any other two adjacent rings.

Claim 2 (cancelled)

Claim 3 (original) The calibration artifact of claim 1 in which each ring has an inner edge and an outer edge.

Claim 4 (withdrawn) A method of calibrating a machine vision measurement system, the method comprising:

placing a calibration artifact including a series of concentric rings under a camera of the machine vision measurement system;

choosing a magnification level;

measuring the size of a first largest ring in pixels;

measuring the size of a second largest ring in pixels;

comparing the sizes; and

determining, from the comparison, the actual diameter of said ring.

Claim 5 (withdrawn) The method of claim 4 in which each ring is of a pre-determined different size and wherein the change in the size of any two adjacent rings is different than the change in size between any other two adjacent rings.

Claim 6 (withdrawn) The method of claim 4 further including determining a first average of the measured size of the first largest ring in pixels and the measured size of the second largest ring in pixels.

Claim 7 (withdrawn) The method of claim 6 further including measuring the size of a third largest ring in pixels and determining a second average of the measured size of the third largest ring in pixels and the measured size of the second largest ring in pixels.

Claim 8 (withdrawn) The method of claim 7 in which comparing includes using the first and second averages.

Claim 9 (original) A calibration artifact for a machine vision measurement system, the calibration artifact comprising:

a substrate; and

a plurality of concentric shapes on one surface of the substrate, each shape of a different pre-defined size and wherein the change between the size of any two adjacent shapes is different than the change in size between any other two adjacent shapes.

Claim 10 (original) A calibration system comprising:

a calibration artifact including:

a substrate; and

a plurality of concentric rings on one surface of the substrate, each ring of a different pre-defined size and wherein the change between the size of any two adjacent rings is different than the change between the size of any other two adjacent rings; and

a software algorithm including a database containing the size of each ring and data reflecting the change in size between each pair of adjacent rings

Claim 11 (withdrawn) A method of calibrating a machine vision measurement device, the method comprising:

placing a calibration artifact including at least one ring with inner and outer edges under a camera of the machine measurement system;

choosing a magnification level;

measuring the size of the outer edge of the ring in pixels;

measuring the size of the inner edge of the ring in pixels; and

averaging the measured size of the outer edge of the ring and the inner edge of the ring.